MIDDLE EAST LEPIDOPTERA: NEW FORMS AND SPECIES. VI.

13, 820 By E. P. WILTSHIRE, F.R.E.S.

This paper may be regarded as a successor to "New Lepidoptera from S.W. Iran" and "Some More New Lepidoptera from S.W. Iran," by the same author, which appeared in *Journ. Bombay N.H.Soc.*, Vol. xlii, August 1941, and Vol. xliv, Part 2, December 1943, respectively. It deals in part with the same district, in part with the opposite shores of the Persian Gulf, around Kuwait and Basra.

Chondrostega subfasciata, Klug., brunneicornis, Wilts., ssp. n. (Fig. D.)

d:-Frons with 3-pointed dark brown process.

Antenna heavily bipectinated, the lamina being brown of a variable hue; only in one specimen can the word "pale" (used by Klug of the antenna of typical subfasciata) be used, but the antenna of this one would be best described as "pale cinnamon." In all the others the laminae are cinnamon-brown, and in one example at least, dark chocolate-brown.

Fore-tibia with spine shorter than half the length of the tibia. This character agrees with *subfasciata* and definitely separates the present moth from *longespinata*, Aur. (which, moreover, was described as having grey antennae).

Forewing lightly scaled, glossy, parchment coloured; not clear white, as in *feisali*, Wilts. Nervures and margins, cinnamon. Upperside unmarked except in one example, in which the central fascia alone is present; *subfasciata* was described as having two obsolete fasciae. When present, the central fascia is grey and diffuse, wavy oblique and obsolete. Fringes hardly chequered (another difference from typical *subfasciata*).

Hindwing, as forewing. In the well-marked example, the grey fascia

is almost entirely obsolete.

Underside, both wings, as upperside, but with fasciae rather less obsolete. In no example is the median fascia complete, but in several it is more traceable than on the upperside; moreover, in one or two examples, slight grey traces of a diffuse submarginal fascia are visible.

Expanse, 28-31 mm.

Holotype:—&, leg. Mrs V. Dickson, 28.x.43, water-well 13, Hamatiyat, Kuwait, E. Arabia. In coll. m. An unmarked specimen.

Paratypes: -ddddd, same captor, date, and place. In coll. m.

Among these is the well-marked specimen.

Klug's type in the Berlin Museum was examined by Aurivillius about 1894 and is inaccessible to the present author. The possibility therefore remains that brunneicornis is specifically distinct, but from a careful comparison of my series with the original descriptions of Klug and Aurivillius I think it more probably a good subspecies of Klug's Egyptian species.

Hamatiyat is in the Shaqq depression some 50 miles S.W. of Kuwait town. *Brunneicornis* also occurs at Manaqish about half-way between Hamatiyat and Kuwait town. It does not appear to inhabit the coastal desert near the town. The habitat is Hamdh desert, of the "Rimdh" type; i.e., not a *Rhanterietum* (*Rhanterium epapposum*, or "Arfaj"; "Rimdh" is probably *Haloxylon salicornicum*). Whether

brunneicornis is really restricted to Haloxylonetum remains to be seen. Phytogeographically the habitat is Saharan-Sindian.

(N.B.—Chondrostega aurivillii, Pungl., ssp. feisali, Wilts.

(First description:—Journ. Bombay N.H. Soc., Vol. xlii, 4, December 1941; figured in The Butterflies and Moths of Iraq, Special Bulletin, Directorate-General of Agriculture, Bagdad, 1944), a race occurring in Iraq and Kuzistan, also occurs on the same Kuwait habitat as brūnneicornis, two examples being taken by Mrs V. Dickson on the same date, to light. This species occurs on several types of desert biotope, though never on alluvial desert. It is considerably larger than brunneicornis, being perhaps the largest and most handsome member of the genus.)

Autophila cymaenotaenia, Bours., ssp. orthotaenia, Wilts., ssp. n. (Fig. E.)

The following description enlarges on a brief preliminary description appearing in the author's *Butterflies and Moths of Iraq* (Bagdad, 1944); an illustration is also supplied.

This race differs from the N. African nymotypical form by the rosier colour of the forewing upperside, and the straighter course of the hind-wing's median band.

Holotype:—Habbariyah well, Kerbela desert, Iraq (leg. Diamond, 4.v.37) in coll. m., but in temporary custody of M. Charles Boursin, Paris. M. Boursin examined the genitalia of this specimen, and mentioned it in his work: Beitrag zur Kenntnis der Agrotidae-Trifinae, xxiii (Mitt. Muench. Ent. Ges., e.v.xxx, Jahrg. 1940, Heft 2) in which cymaenotaenia was first described and illustrated; he remarked on the rosier colouring but, doubtless for lack of further material from Asia, gave no name to it.

Allotype: —♀, water-well 13, Hamatiyat, Kuwait, E. Arabia (leg. Mrs V. Dickson, 28.x.43), in coll. m.

Paratype:—♂, Burqan, 30 miles S. of Kuwait town, E. Arabia (leg. Mrs V. Dickson, 24.xii.43), in coll. m.

These two examples, which resemble the Iraq example seen by M. Boursin, justify the naming of the Asian race. They also show that this species has two broods, a fact not known before.

Boarmia ghirshmani, Wilts., sp. n. (Fig. A.)

This species somewhat resembles the little-known Boarmia tenuisaria, Stgr. (=tenuiscaria, Alb. & Warn. nec Stgr.). A good photo of the type of the latter was published by Albers and Warnecke in Mitt. Muench. Ent. Ges., xxxi, Jahrg. 1941, Heft 1. The differences, as far as it is possible to describe them in the absence of a male of the new species, are as follows:—

- (A) tenuisaria is autumnal, flying in November. ghirshmani is vernal, flying in March-April.
- (B) tenuisaria belongs to the Lycietum of the Iraqi plain, an oasis biotope; in Palestine (the type-locality) it probably belongs to a similar biotope. Foodplant: Lycium barbarum, L. The moth is locally common.

ghirshmani belongs to the Amygdaletum of the South Zagros Mts. It is euryoecous in the scrub zone and scarce.

(C) tenuisaria ♀ forewing has a paler, i.e., less black-powdered median area, the dark shades being basad of the first line and terminad of the second line.

ghirshmani Q forewing has the area between the two lines more heavily powdered with black scales and no darker shades

outside the area.

(D) tenuisaria (♀ forewing)—the submarginal shade begins from the outer border well below the apex and then runs to the middle of the inner border, close to the outer line.

ghirshmani Q forewing has no such shade.

(E) tenuisaria (♀ forewing)—the black outer line is obsolete near the apex, but is acutely angled in the neighbourhood of nervure 8 and reaches the costa 2 or 3 mm. from the apex.

ghirshmani (\$\phi\$ forewing)—the black outer line is clearly defined throughout and slightly wavy but not acutely angled; it

reaches the costa about 1 mm. from the apex.

For the rest, the reader is referred to the plate, which shows both species. They are of similar size.

Named in honour of M. Roman Ghirshman, the French archaeologist, and Mme. Ghirshman, in grateful recognition of their hospitality at Shapur at the time of the capture of the holotype. M. Ghirshman was charged by the Louvre with excavating the Sassanian city of Shapur. The author wishes here to acknowledge also with thanks the receipt from Mme. Ghirshman of some interesting specimens of Lepidoptera taken at light at Shapur and later at Kabul, Afghanistan.

Staudinger's original description of tenuisaria (Iris, xii (1899), p. 394, Taf. v, Fig. 3) was made from two males, whose span was given as 25-26 mm. The Basra female therefore, taken on 26.xi.43, becomes the neallotype of tenuisaria. It is partly described above, and this description is supplemented by the accompanying photograph (Fig. C) and the following comparison between it and its male:—It is generally similar in facies to the male, though the markings are less contrasted; the antenna is simple, that of the male is strongly bipectinated; span, 27 mm. It seems to fly less than the male and is therefore less often caught. Staudinger's original figure of the male is most unsatisfactory; so is that in Seitz, Vol. iv. Neallotype in coll. mea. (Fig. C.)

My Basra series of *tenuisaria*, Stgr., seems to be the first recapture since this moth was originally caught in Palestine on 7th November and 5th December 1898.

The early stages of *tenuisaria* are described, in the author's "Early Stages of Oriental Palaearctic Lepidoptera, VII," which follows with a single plate which illustrates both articles.